

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously Presented) A surface-coated high hardness material for tool comprising:

a substrate made of a cubic boron nitride sintered compact (CBN sintered compact, hereinafter), and

at least one coating film layer formed on the surface of the substrate, wherein the thickness of the coating film layer ranges from 0.1 μm to less than 1 μm ,

wherein the composition of the coating film is expressed by $(\text{Ti}_{1-X}\text{Al}_X)\text{N}$, where $0.3 \leq X \leq 0.45$, and

wherein a relation of $0 \leq I(200)/I(111) \leq 3$ is established when diffraction strength of (111) plane in X-ray diffraction of the coating film is $I(111)$ and diffraction strength of (200) plane is $I(200)$.

2-4. (Canceled)

5. (Previously Presented) The surface-coated high hardness material for a tool according to claim 1, wherein average grain diameter of crystal constituting the coating film is from 50 nm to less than 150 nm.

6. (Previously Presented) The surface-coated high hardness material for a tool according to claim 1, wherein a portion of Ti included in the coating film is replaced by at least one element selected from periodic table 4a, 5a and 6a group transition metal elements excluding Si, B and Ti, a content of replaced element in the coating film is less than 10 atom %.

7. (Previously Presented) The surface-coated high hardness material for a tool according to claim 1, wherein the surface-coated high hardness material for a tool is used for a grooving tool.

8. (Previously Presented) The surface-coated high hardness material for a tool according to claim 1, wherein the substrate is a sintered compact comprising 30 to 90% by volume cubic boron nitride (CBN) powder and balance of bonding material, the balance of bonding material comprises aluminum compound, inevitable impurities and at least one compound selected from nitride, carbide, boride, oxide of periodic table 4a, 5a and 6a elements and solid solution thereof.

9. (Currently Amended) The surface-coated high hardness material for a tool according to claim 1, wherein total film thickness of the coating film is from 0.1 μm to less than 0.5 μm .

10. (Previously Presented) The surface-coated high hardness material for a tool according to claim 1, wherein the surface-coated high hardness material for a tool is used

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for high precision cutting tool for quenched steel and here, the high precision cutting means cutting having feed of 0.08 mm/rev or less.